



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/699,109

10/31/2003

Edward C. Gunzel

FA/261

1873

28596 7590 02/21/2007
GORE ENTERPRISE HOLDINGS, INC.
551 PAPER MILL ROAD
P. O. BOX 9206
NEWARK, DE 19714-9206

EXAMINER

COLE, ELIZABETH M

ART UNIT

PAPER NUMBER

1771

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

02/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/699,109

Applicant(s)

GUNZEL ET AL.

Examiner

Elizabeth M. Cole

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-86 is/are pending in the application.
- 4a) Of the above claim(s) 39-81 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-38 and 82-86 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

Art Unit: 1771

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/30/06 has been entered.

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8, 16-32, 82-86 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2001/0006173 to Rock et al in view of Caird et al, U.S. Patent NO. 3,768,156. Rock discloses a fabric having a conductive cable attached to it. The fabric can be a knitted, woven or nonwoven material and can comprise multiple layers. The fabric can be hydrophobic or hydrophilic. See paragraph 0020. The conductive cable can be covered by a barrier layer which corresponds to the claimed tape. The barrier layer can comprise multiple layers. The layers can comprise polyurethane and PTFE among other materials. The barrier layer can be adhesively bonded to the fabric layer and overlies the conductive cable. See figure 12 as well as paragraph 0031. With regard to the limitations set forth in claims 22-26, no structure is set forth for the claimed articles. Therefore, these statements have been considered to be statements of intended use. Rock et al differs

Art Unit: 1771

from the claimed invention because although Rock et al does disclose employing multiple fabric layers it does not explicitly state that the cable extends across two of the layers. Caird et al teaches that conductive cables such as electrodes can be incorporated into garments such as jacket so that the cable extends across two fabric panels. See figure 3 as well as col. 3, line 53 – col. 4, line 41. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the jacket of Rock so that the cable extended across two fabric panels, motivated by the teaching of Caird that this was a known method of forming a garment such as a jacket which comprised conductive elements and because the more panels that are used in jackets the better the fit of the jacket. With regard to the limitations regarding the conductivity of the cable, since the cables in Rock are used as heating elements, it would have been obvious to have selected the appropriate conductivity and resistance in the cables in order to produce a material having the desired properties. With regard to the limitations regarding durability after washing, since Rock appears to disclose the same structure, presumably the material of Rock would meet these limitations.

3. Claims 9-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rock et al in view of Caird et al, U.S. Patent NO. 3,768,156 as applied to claims above, and further in view of Cordia et al, U.S. Patent No. 5,236,765. Rock discloses a heatable fabric as set forth above. Rock differs from the claimed invention because Rock et al does not disclose the particular types of adhesives which can be used to bond the barrier layer which overlies the cable to the fabric layer. Cordia teaches at col.

Art Unit: 1771

9, lines 4-16, that pressure sensitive, hot melt or curable adhesives can be used to bond heating elements to fabric layers. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention to have employed the particular adhesives set forth by Cordia to bond the barrier tape of Rock to the fabric layer, since Cordia teaches that such adhesives are suitable for use to bond heating elements to fabric layers.

4. Claims 33-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rock et al in view of Caird et al as applied to claims above, and further in view of Parker, U.S. Patent No. 5,658,164. Rock discloses a heatable fabric as set forth above. Rock differs from the claimed invention because Rock does not disclose employing a micro ribbon as the conductive cable. Parker teaches that micro-ribbon cables which comprise an insulation layer can be used to form electrical connections. Therefore, it would have been obvious to one of ordinary skill in the art at the time to have employed a micro-ribbon as the cable in Rock. One of ordinary skill in the art would have been motivated to employ a micro ribbon cable because Parker teaches that such cables are rugged and durable. See col. 4, lines 40-45.

5. Applicant's arguments with regard to Rock et al as not teaching extending the cable across two panels are moot in view of the new grounds of rejection employing Caird. With regard to the argument that Rock et al does not disclose employing an adhesive to bond the cable to the fabric, since Rock et al specifically teaches that the composite tape disclosed in Lumb is suitable for use as the composite tape, this is the portion of Rock which is relied on for the rejection. Further, looking at figure 14, it is

Art Unit: 1771

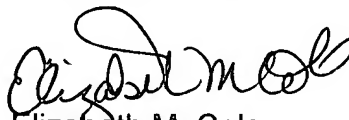
clear that the adhesive 104 is in contact with the cable 16. Finally, there is nothing in Rock which teaches not contacting the adhesive to the cable. Therefore, this argument is not persuasive.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571) 272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

Mr. Terrel Morris, the examiner's supervisor, may be reached at (571) 272-1478.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax number for all official faxes is (571) 273-8300.



Elizabeth M. Cole
Primary Examiner
Art Unit 1771

e.m.c